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NEW COLLECTION RECORDS FOR THE AQUATIC MACROPHYTES *CERATOPTERIS THALICTROIDES* (PARKERIACEAE) AND *LIMNOPHILA SESSILIFLORA* (SCROPHULARIACEAE) IN TEXAS—The spring systems that arise along the Balcones fault zone of central Texas support a diversity of aquatic macrophytes, including a number of adventive species that have not been reported from elsewhere in the state (Lemke 1989, Ramamoorthy & Turner 1992, Angerstein & Lemke 1994). The upper San Marcos River in Hays County, Texas, supports a macrophyte community comprising thirty-one species (Lemke 1989), two of which, *Ceratopteris thalictroides* (L.) Brongn. and *Limnophila sessiliflora* Bl., have not previously been reported elsewhere in Texas (Correll & Johnston 1970). Recent collections of aquatic macrophytes from Landa Lake, a small reservoir formed by the damming of the headwaters of the Comal River in New Braunfels, Comal County, Texas, have documented the presence of these two species in this river system as well.

Ceratopteris thalictroides is a tropical, free-floating, homosporous aquatic fern that has been introduced into Florida, Louisiana, Texas, and California (Lloyd 1993). The species was first reported from Texas by Morton (1967) and its introduction into the San Marcos River by a local aquarium plant supply company was documented by Hannan (1969). The following collection represents only the second county record for the species in Texas:

Voucher specimen: TEXAS. **Comal Co.**: free-floating along north shore of Landa Lake, Landa Park, City of New Braunfels, 16 Apr 1994, *Lemke 4163* (SWT).

Limnophila sessiliflora is a submersed or emergent macrophyte indigenous to India and Southeast Asia. It resembles the native species *Cabomba caroliniana* A. Gray in gross morphology, but can be easily distinguished in the vegetative state by its bright green coloration, more compact growth habit, and verticillate leaves. *Limnophila sessiliflora* is reported to be sporadically naturalized in Florida and Georgia; the following collection represents only the second county record for the species in Texas:

Voucher specimen: Texas. **Comal Co.**: submerged along north shore of Landa Lake, Landa Park, City of New Braunfels, 25 May 1994, *Lemke 4171* (SWT).

It seems likely that these species were introduced into Landa Lake either intentionally, as has been documented for *C. thalictroides* in Texas by Hannan (1969) and for *L. sessiliflora* in Florida by Mahler (1980), or unintentionally through careless dumping by aquarists, as has been surmised for the aquatic weeds *Nomaphila stricta* (Vahl) Nees (Acanthaceae) by Ramamoorthy & Turner (1992) and *Hygrophila polysperma* (Roxb.) T. Anders. (Acanthaceae) by Angerstein & Lemke (1994).

Although *C. thalictroides* has not been reported to occur so abundantly as to cause problems in aquatic ecosystems, *L. sessiliflora* is of concern as a potential aquatic weed. Several species of *Limnophila,* including *L. sessiliflora,* are responsible for major weed infestations throughout much of Southeast Asia and virtually all herbicides registered for use in aquatic systems have proven ineffective in controlling these species (Misra & Tripathy 1975, Takematsu et al. 1976, Mahler 1980). Spencer & Bowes (1985) reported that *L. sessiliflora* has several characteristics that could provide it with a competitive advantage over native aquatic plants in Florida, such as a substantial reproductive capacity, the potential for a low photorespiration rate, and the ability to photosynthesize effectively under low light regimes.

Limnophila sessiliflora was reported to be uncommon in the San Marcos River by Lemke (1989) but has been found to be abundant in parts of Landa Lake, where several individuals were observed to be flowering in the summer of 1994. Although the species has a limited capacity for asexual reproduction, this may be offset by its profuse sexual reproduction. Spencer & Bowes (1985) reported that each flower of *L. sessiliflora* may set between 200 and 300 seeds with a germination rate as high as 96 percent. Presently there is no evidence that *L. sessiliflora* is having a deleterious effect on the growth of native aquatic plant species in either the San Marcos or Comal rivers; however, the spread of this species in the spring systems of central Texas should be closely monitored.

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QUERCUS LACEYI (FAGACEAE) NEW TO THE LLANO UPLIFT AREA OF CENTRAL TEXAS—The Lacey oak, *Quercus laceyi* Small, is a small to moderate-sized tree that is commonly found on mesic north-facing slopes and in canyons on the Edwards Plateau of central Texas. The range of the species in Texas extends from Bexar and Medina counties in the east to Terrell and Brewster counties in the west; it is also found on the eastern slopes of the Sierra Madre Oriental in Coahuila and Nuevo Leon, Mexico (Muller 1951, Nixon & Muller 1992). These plants were included in *Q. glaucoides* Mart. & Gal. by Trelease (1924) and Correll & Johnston (1970), but have recently been shown to represent a distinct allopatric species, with true *Q. glaucoides* being confined to central and southern Mexico (Nixon & Muller 1992).

Quercus laceyi was described by Small (1901) from material collected "on limestone hills" in Kerr County, Texas, and subsequent descriptions of the habitat of the species (e.g., Muller 1951, Correll & Johnston 1970, Nixon & Muller 1992) have always emphasized the calcareous substrate. In October, 1993, I discovered a stand of several dozen individuals of *Q. laceyi* in a mesic canyon at Enchanted Rock State Natural Area in Gillespie and Llano counties, Texas. The individuals were mostly mature trees 20–30 cm in diameter growing in association with *Celtis reticulata* Torr. and *Diospyros texana* Scheele. The following collection citation is the first documentation of the occurrence of *Q. laceyi* on the igneous-derived sandy soils of the Llano Uplift rather than the limestone-derived soils of the surrounding Edwards Plateau:

Voucher specimen: TEXAS. **Llano Co.**: Enchanted Rock State Natural Area, in canyon between Enchanted Rock and Little Rock, 13 Oct 1993, *Lemke 4138* (SWT, TEX).

Given that several vegetation studies have been conducted in the area now included within Enchanted Rock State Natural Area (Whitehouse 1933, Butterwick 1979, Walters 1980) and that the collection site is situated along a frequently used hiking trail, it is surprising that the occurrence of *Q. laceyi* has